



GAINS IN CHEMISTRY GRADS PERSIST

Strong trend of rising **BACHELOR'S DEGREES** continues, graduate awards slow

DAVID J. HANSON, C&EN WASHINGTON

U.S. UNIVERSITIES and colleges with chemistry programs approved by the American Chemical Society Committee on Professional Training (CPT) conferred a record high of nearly 14,000 bachelor's degrees in chemistry during the 2007-08 academic year. The number of chemistry master's degrees awarded by these schools rose slightly during the same period, but the number of chemistry Ph.D.s fell more than 4% from a 2006-07 peak. Chemical engineering bachelor's degrees and Ph.D.s rose in 2007-08, while chemical engineering master's degrees fell a bit.

These are the key findings in the latest report of graduates submitted by the 647 schools with ACS-approved chemistry bachelor's programs. In 2007-08, they granted 13,921 bachelor's degrees, an 8.0% increase from the previous academic year. Chemistry departments at 307 schools,

the same number that reported in 2006-07, awarded 2,051 master's degrees in chemistry, up 0.4% from the previous year. And 200 institutions, again the same number as in 2006-07, reported granting 2,362 new chemistry Ph.D.s., down 4.1% from the previously reported high of 2,462 doctorates given in 2006-07.

The data for chemical engineering graduates are similar. The total of 4,708 bachelor's degrees in chemical engineering represents a significant 5.7% rise from the prior year. Master's degrees in chemical en-

gineering slid 1.7% from 952 to 936, but 885 Ph.D. degrees were awarded in 2007-08, a rise of 0.8% compared with 878 in 2006-07 and just shy of the record 890 in 2005-06.

The increase in chemistry bachelor's degrees maintains a six-year trend that seems to be growing stronger. From a recent low of just 9,923 bachelor degrees in 2001-02, the yearly total has grown by 40.3%, or about 7% per year.

Trends in graduate degrees are less dramatic. Master's degrees in chemistry have been rather stagnant for a decade, hovering around 2,000 degrees per year, with a low of 1,614 in 2003. The number of chemistry Ph.D. degrees had also languished at around 2,000 until 2006, when it began a slow rise.

CHEM ENGINEERING GRADUATES

Top 10 producers for 2007-08

BACHELOR'S GRADUATES

1	Texas, U of, Austin	109
2	Puerto Rico, U of, Mayagüez	103
3	Michigan, U of, Ann Arbor	102
3	Minnesota, U of, Twin Cities	102
5	Pennsylvania State U	98
6	California, U of, Berkeley	94
7	North Carolina State U	89
8	Georgia Institute of Technology	88
9	Texas A&M U, College Station	81
10	Colorado School of Mines	80

MASTER'S GRADUATES

1	Lamar U	34
2	Massachusetts Institute of Technology	30
3	Southern California, U of	29
4	South Florida, U of	27
5	Texas A&M U, Kingsville	25
6	Illinois Institute of Technology	20
7	Florida, U of	19
7	Stanford U	19
9	Michigan, U of, Ann Arbor	17
10	Lehigh U	16
10	Washington, U of	16

DOCTORAL GRADUATES

1	Georgia Institute of Technology	31
2	Massachusetts Institute of Technology	30
3	California, U of, Berkeley	26
3	Wisconsin, U of, Madison	23
5	Purdue U	22
5	Texas, U of, Austin	21
7	Minnesota, U of, Twin Cities	20
8	Northwestern U	20
8	Florida, U of	19
10	Carnegie Mellon U	18
10	Michigan, U of, Ann Arbor	18
10	Rensselaer Polytechnic Institute	18

SOURCE: Report of the ACS Committee on Professional Training, 2008

BIG PRODUCERS OF CHEMISTRY GRADUATES

Seven schools made the top 25 list at all three degree levels in 2007-08

NO. OF GRADUATES	BACHELOR'S	MASTER'S	PH.D.
California, U of, Los Angeles	238	17	28
Florida, U of	104	20	47
Minnesota, U of, Twin Cities	100	40	27
California, U of, Irvine	96	20	36
Illinois, U of, Urbana-Champaign	90	17	32
North Carolina, U of, Chapel Hill	84	18	34
Michigan, U of, Ann Arbor	83	43	44

SOURCE: Report of the ACS Committee on Professional Training, 2008

GRADUATE CHEMISTRY STUDENT ENROLLMENTS

Number of first-time doctoral students makes a big jump

	NO. OF DEPARTMENTS	FIRST-YEAR GRADUATE STUDENTS		ALL GRADUATE STUDENTS	
		FULL-TIME	PART-TIME	FULL-TIME	PART-TIME
MASTER'S					
2001	121	447	167	1,192	644
2002	121	446	160	1,188	636
2003	114	464	149	1,192	604
2004	110	526	141	1,351	549
2005	108	574	133	1,406	597
2006	110	529	165	1,345	606
2007	108	563	149	1,462	583
PH.D.					
2001	192	3,729	180	16,092	811
2002	193	3,827	176	16,588	823
2003	196	3,777	319	17,258	1,095
2004	195	3,859	161	17,543	941
2005	195	3,870	161	18,167	948
2006	200	3,795	138	18,576	823
2007	200	3,936	193	18,656	952

NOTE: Master's departments are those offering the master's as the highest degree.

SOURCE: Annual reports of the ACS Committee on Professional Training

ACS COUNT OF CHEMISTRY GRADUATES

Bachelor's degrees rise, but advanced degrees level off

	BACHELOR'S			MASTER'S	PH.D.
	TOTAL	CERTIFIED	% CERTIFIED		
1992	8,435	3,604	42.7%	1,617	2,202
1993	8,800	3,605	41.0	1,683	2,140
1994	9,443	3,912	41.4	1,803	2,202
1995	9,947	3,971	39.9	1,878	2,127
1996	10,902	4,309	39.5	2,098	2,127
1997	11,184	4,253	38.0	2,086	2,174
1998	11,219	4,247	37.9	1,980	2,208
1999	10,979	4,406	40.1	1,925	2,093
2000	10,669	4,150	38.8	1,796	1,982
2001	10,323	3,917	37.9	1,832	2,028
2002	9,923	3,713	37.4	1,701	1,955
2003	10,068	3,739	37.1	1,614	2,007
2004	10,155	3,622	35.7	1,840	1,963
2005	10,945	3,924	35.9	1,748	2,064
2006	12,120	4,252	35.1	1,989	2,321
2007	12,888	4,517	35.0	2,042	2,462
2008	13,921	4,865	34.9	2,051	2,362

NOTE: Counts are of graduates from schools with an ACS-approved bachelor's degree program in chemistry. Certified degrees are determined by the chairs of ACS-approved chemistry departments and are considered to be a more rigorous course of study. **SOURCE:** Annual reports of the ACS Committee on Professional Training

CHEMISTRY GRADUATES BY GENDER

Men makes slight gains at the Ph.D. level

	TOTAL	MEN	WOMEN	% WOMEN
BACHELOR'S GRADUATES				
1983	10,043	6,731	3,312	33.0%
1988	8,271	5,033	3,238	39.1
1993	8,800	5,228	3,572	40.6
1998	11,219	6,134	5,076	45.2
1999	10,979	6,012	4,967	45.2
2000	10,669	5,746	4,923	46.1
2001	10,323	5,409	4,914	47.6
2002	9,923	4,958	4,965	50.0
2003	10,068	5,100	4,968	49.3
2004	10,155	4,987	5,168	50.9
2005	10,947	5,264	5,683	51.9
2006	12,120	5,829	6,291	51.9
2007	12,888	6,472	6,416	49.8
2008	13,921	6,979	6,942	49.9

MASTER'S GRADUATES

1983	1,569	1,125	444	28.3%
1988	1,584	1,054	530	33.5
1993	1,683	1,003	680	40.4

1998	1,980	1,087	893	45.1
1999	1,925	1,097	828	43.0
2000	1,796	1,036	760	42.3
2001	1,832	1,092	740	40.4
2002	1,701	922	779	45.8
2003	1,614	873	741	45.9
2004	1,840	976	864	47.0
2005	1,748	897	848	48.6
2006	1,989	1,025	964	48.5
2007	2,042	1,058	984	48.2
2008	2,051	1,091	960	46.8

DOCTORAL GRADUATES

1983	1,759	1,459	300	17.1%
1988	1,955	1,504	451	23.1
1993	2,140	1,523	617	28.8

1998	2,208	1,509	699	31.7
1999	2,093	1,454	639	30.5
2000	1,982	1,339	643	32.4
2001	2,028	1,335	693	34.2
2002	1,955	1,307	648	33.2
2003	2,007	1,368	639	31.8
2004	1,963	1,314	649	33.1
2005	2,051	1,346	705	34.4
2006	2,321	1,492	829	35.7
2007	2,462	1,554	908	36.9
2008	2,362	1,509	853	36.1

NOTE: Counts are of graduates from schools with an ACS-approved bachelor's degree program in chemistry. **SOURCE:** Annual reports of the ACS Committee on Professional Training

For chemical engineering, the nearly 6% increase in bachelor's degrees combined with a jump in Ph.D. degrees in 2005–06 may indicate increasing interest in a degree that has always led to nearly full employment at wages considerably higher than corresponding chemistry degrees (C&EN, Nov. 3, 2008, page 44).

These data come from the latest report

on degrees granted in chemistry and chemical engineering from CPT. Under the direction of Cathy A. Nelson since 1992, the society's Office of Professional Training collects the reports from ACS-approved colleges and universities across the U.S. The office's technology specialist, Gary Woods, has compiled the data for the past several years.

Established by the society in 1936, CPT assesses, approves, and monitors undergraduate chemistry programs. ACS does not approve master's or doctoral programs. College and university chemistry departments apply to ACS for approval of their bachelor's programs. To be approved, the

CHEMISTRY GRADUATES

Top 25 producers for 2007–08

TOTAL BACHELOR'S GRADUATES

1	Washington, U of	256
2	California, U of, Los Angeles	238
3	Texas, U of, Austin	200
4	California, U of, San Diego	191
5	California, U of, Berkeley	148

6	Temple U	105
7	Florida, U of	104
8	North Carolina State U	103
9	Minnesota, U of, Twin Cities	100
10	California, U of, Irvine	96

11	Illinois, U of, Urbana-Champaign	90
12	Arizona State U	88
13	Colorado, U of, Boulder	86
14	Virginia, U of	85
15	North Carolina, U of, Chapel Hill	84

16	Florida State U	83
16	Michigan, U of, Ann Arbor	83
16	State U of New York, Buffalo	83
19	California, U of, Santa Barbara	79
20	Maryland, U of, College Park	78

21	Indiana U, Bloomington	75
22	Oklahoma, U of	74
23	City U of New York, Hunter C	73
23	Emory U	73
23	Pittsburgh, U of	73

CERTIFIED BACHELOR'S GRADUATES

1	Texas, U of, Austin	200
2	California, U of, San Diego	116
3	North Carolina, U of, Chapel Hill	84
4	Michigan, U of, Ann Arbor	83
5	Virginia, U of	64

6	North Carolina State U	53
7	California, U of, Santa Barbara	51
8	Utah, U of	49
9	Illinois, U of, Chicago	46
10	North Carolina, U of, Wilmington	44

11	Delaware, U of	42
12	Georgia Institute of Technology	40
13	Carnegie Mellon U	38
13	U.S. Naval Academy	38
15	California, U of, Irvine	37

16	California, U of, Davis	36
16	Texas, U of, El Paso	36
18	Massachusetts Institute of Technology	31
18	William & Mary, C of	31
20	California State U, Northridge	30

20	U of Houston	30
20	Illinois State U	30
20	C of New Jersey	30
24	Truman State U	29
24	U.S. Air Force Academy	29

MASTER'S GRADUATES

1	Michigan, U of, Ann Arbor	43
2	Minnesota, U of, Twin Cities	40
3	Columbia U	39
4	Harvard U	37
5	Cornell U	35

6	Lehigh U	31
6	Rice U	31
8	Yale U	28
9	Washington U	26
10	Oregon, U of	24

11	Chicago, U of	23
12	Georgia State U	22
13	Rochester, U of	21
14	California, U of, Irvine	20
14	Florida, U of	20

14	Wisconsin, U of, Madison	20
17	North Carolina, U of, Chapel Hill	18
18	Brandeis U	17
18	California, U of, Los Angeles	17
18	Illinois, U of, Urbana-Champaign	17

18	Johns Hopkins U	17
18	Oklahoma, U of	17
23	Arizona, U of	16
23	Eastern Michigan U	16
23	New York U	16

23	Southern Illinois U, Edwardsville	16
23	Villanova U	16

DOCTORAL GRADUATES

1	California, U of, Berkeley	75
2	Purdue U	50
3	Florida, U of	47
4	Michigan, U of, Ann Arbor	44
5	Northwestern U	41

5	Wisconsin, U of, Madison	41
7	Massachusetts Institute of Technology	39
8	Texas, U of, at Austin	37
9	California, U of, Irvine	36
10	Texas A&M U, College Station	35

11	Harvard U	34
11	North Carolina, U of, Chapel Hill	34
13	California Institute of Technology	32
13	Illinois, U of, Urbana-Champaign	32
15	Pennsylvania State U	31

16	Cornell U	30
16	Pittsburgh, U of	30
18	California, U of, San Diego	29
19	California, U of, Los Angeles	28
20	Minnesota, U of, Twin Cities	27

20	Stanford U	27
22	Princeton U	26
22	Utah, U of	26
22	Washington, U of	26
25	Columbia U	25

25	Georgia Institute of Technology	25
25	Michigan State U	25

SOURCE: Report of the ACS Committee on Professional Training, 2008

programs are evaluated against specific criteria established by the committee. Departments with approved chemistry programs must report annually to CPT all the degrees they award at all three degree levels. For the 2007–08 reporting year, 647 departments had approved bachelor's degree programs.

OF COURSE, some schools with chemistry departments have not applied to ACS to have their programs approved; however, CPT estimates that more than 90% of bachelor's degrees in chemistry

come from colleges and universities that offer programs approved by ACS. CPT also uses data from chemical engineering departments that are accredited by ABET Inc., formerly the Accreditation Board for Engineering & Technology. These departments are not required to respond to CPT surveys, but most of them do. For 2007–08, 149 out of 154 chemical engineering departments responded, Nelson says.

School-by-school data for 2007–08 chemistry and chemical engineering graduates are listed in a table beginning on page 42; they are also available at www.acs.org/cpt.

Two types of bachelor's degrees are reported: ACS-certified and noncertified. The determination of how many degrees granted by a chemistry department are ACS-certified versus noncertified is made by the head of the chemistry departments and not by ACS.

Before January of this year, only graduates with an ACS-certified bachelor's degree were qualified for immediate full membership in ACS. Those without a certified bachelor's degree had to have three years of professional experience in chemistry or a higher degree in a chemical science

to be full members. In January, however, the society opened full membership to anyone with an associate's or a bachelor's chemistry degree, certified or not (C&EN, May 5, 2008, page 50).

Chemistry department policies on ACS certification vary considerably among colleges and universities. For example, the University of Washington was the top producer of bachelor's degrees in chemistry last year, awarding 256 degrees, but just 15 of those were ACS-certified. At the University of Texas, Austin, on the other hand, 200 bachelor's degrees in chemistry were conferred, and all of them were ACS-certified.

According to Nelson, the committee does not anticipate any change in the proportion of students pursuing certified degrees because of the changed requirements for ACS membership. Most students pursue a certified degree because it is a more demanding course of study, she says. Even so, there has been a long, slow decline in the proportion of certified degrees relative to total chemistry bachelor's degrees awarded. From a high of about 43% certified in 1991-92, the percentage has dropped to 35% in 2007-08, the same as it was in 2006-07.

THE STEADY UPSWING of bachelor's degrees in chemistry is reflected in the similar rise in enrollments in chemistry Ph.D. programs, according to CPT. First-year chemistry doctoral students increased to 3,936 at the start of the 2007-08 academic year, a 3.7% gain from 3,795 the previous year. The total number of full-time Ph.D. students rose a modest 0.4% as a result, to 18,656.

Enrollments in chemistry programs offering master's degrees, however, have flattened over the past four years. CPT reports that the number of first-year master's students rose slightly last year, to 563. But that did not make up for the 7.8% loss the year before. The total number of chemistry master's students did rise in 2007, reaching 1,462, an 8.7% gain from 2006 numbers.

Women continue their strong presence in the chemical sciences, but the rate of increase in the percentage of women receiving degrees in chemistry has leveled off. Women receive almost exactly half—49.9%—of all bachelor's degrees in chemistry, a proportion that has changed little over the past six years. The number of bachelor's degrees awarded to women rose to 6,942 in 2007-08, a significant 8.2% jump over 2006-07. In 2007-08, the fourth

ACS COUNT OF CHEMICAL ENGINEERING GRADUATES

Number of bachelor's degrees rises slightly

	BACHELOR'S	MASTER'S	PH.D.
2002	5,154	900	562
2003	4,964	1,036	574
2004	4,759	1,128	638
2005	4,418	1,242	798
2006	4,523	1,132	890
2007	4,456	952	878
2008	4,708	936	885

NOTE: Chemical engineering departments are not required to report their data to ACS. For 2007-08, 149 of 154 departments responded.

SOURCE: Annual reports of the ACS Committee on Professional Training

year that the percentage of bachelor's degrees awarded to men increased after falling for a number of years, the number of men receiving bachelor's degrees rose 7.8% to 6,979 from 6,472 in 2006-07.

Doctorates were awarded to 853 women in 2007-08, a decline of 55, or 6.1%, from 2006-07. Women received 36.1% of all chemistry Ph.D.s in 2007-08, marking the first time since 2002-03 that both the number and the percentage of women getting Ph.D.s decreased.

The list of colleges and universities producing the most chemistry graduates shifts from year to year, but the same schools always seem to stay near the top. The University of Washington, which awarded the most bachelor's chemistry degrees in 2006-07, did the same in 2007-08, awarding 256 degrees. The four other schools in the top five in 2006-07 remained there in 2007-08. Temple University made the largest jump in 2007-08 among the top-producing schools, awarding a total of 105 bachelor's degrees and moving from 20th place to sixth. New schools on the most-productive list include the University of Oklahoma, with 74 bachelor's degrees awarded; City University of New York, Hunter College, with 73 bachelor's degrees; and Emory University, with 73.

The University of Michigan, Ann Arbor, awarded the most master's degrees in chemistry in 2008, with 43. The University of Minnesota, Twin Cities, was second, with 40 master's degrees, a big increase for a school that was not even among the top 25 in the previous year.

Repeating as the top producer of chemistry Ph.D.'s in 2007-08 is the University of California, Berkeley, with 75 doctoral graduates, followed by Purdue University, with 50; and the University of Florida, with 47. New schools among the top 25 in

this category include Cornell University, Princeton University, and Columbia University.


For chemical engineering, the University of Texas, Austin, awarded the most bachelor's degrees in 2007-08, with 109, followed by the University of Puerto Rico, Mayagüez, with 103, a school that wasn't on the list last year but is usually a top producer.

Lamar University awarded the most master's degrees in chemical engineering in 2007-08, with 34 degrees. In second and third place were Massachusetts Institute of Technology, with 30 degrees, and the University of Southern California, with 29.

Georgia Institute of Technology graduated the most Ph.D. chemical engineers in 2007-08, with 31 doctorates awarded. MIT was a close second, with 30. Breaking into the top-producers list for chemical engineers were the University of Wisconsin, Madison, which awarded 23 degrees; Northwestern University, which awarded 20; and Carnegie Mellon University, which awarded 18. ■

Copyright Permission to Use C&EN in the Classroom

Educators are always encouraged to make C&EN a part of the curriculum. If you are interested in photocopying articles or linking to a specific page on www.cen-online.org, contact the ACS Copyright Office for permission*



Please remember to include:

- Your complete contact information (institution name, phone number, e-mail address, and fax number in addition to your name)
- The exact citation (C&EN, month, day, and year of publication; volume and issue numbers; inclusive page numbers)
- How you plan on using the article
- Your specific deadline date

The Copyright Office will then contact you.
*For educators, the use is granted in many cases.

By Email:
Copyright@acs.org
By Fax:
202-776-8112

C&EN
The Chemical Engineering News Service

DATA FROM ACS COMMITTEE ON PROFESSIONAL TRAINING, 2007–08

Chemistry and chemical engineering degrees awarded by schools offering an ACS-approved program

	CHEMISTRY				CHEMICAL ENGINEERING				CHEMISTRY				CHEMICAL ENGINEERING		
	BACHELOR'S				B.S.	M.S.	PH.D.		BACHELOR'S				B.S.	M.S.	PH.D.
	TOTAL	CERTIFIED	M.S.	PH.D.							TOTAL	CERTIFIED			
A															
Abilene Christian U	26	3	–	–											
Agnes Scott C	8	4	–	–											
Akron, U of	11	9	6	9	15	6	6								
Alabama, U of															
Birmingham	32	15	3	2											
Huntsville	7	3	4	–	15	2	–								
Tuscaloosa	30	1	6	17	35	4	3								
Alaska Fairbanks, U of	6	3	6	0											
Albion C	17	5	–	–											
Albright C	9	2	–	–											
Alfred U	10	7	–	–											
Allegheny C	18	0	–	–											
Alma C	14	2	–	–											
American U	9	9	3	0											
Amherst C	17	13	–	–											
Andrews U	6	1	–	–											
Appalachian State U	24	4	–	–											
Arcadia U	3	2	–	–											
Arizona State U	88	4	7	10	35	4	1								
Arizona, U of	33	21	16	18	21	1	3								
Arkansas State U	22	4	6	–											
Arkansas Tech. U	9	2	–	–											
Arkansas, U of															
Fayetteville	33	21	0	12	32	5	4								
Little Rock	10	0	6	1											
Armstrong Atlantic State U	9	0	–	–											
Ashland U	4	2	–	–											
Auburn U	16	10	0	6	32	3	2								
Augsburg C	4	2	–	–											
Augustana C															
Illinois	7	1	–	–											
South Dakota	8	4	–	–											
Austin C	13	0	–	–											
Austin Peay State U	24	1	–	–											
B															
Baldwin-Wallace C	9	0	–	–											
Ball State U	29	14	3	–											
Barnard C	22	22	–	–											
Bates C	5	3	–	–											
Baylor U	48	5	2	6											
Beloit C	10	4	–	–											
Bemidji State U	12	0	–	–											
Benedictine U	9	8	–	–											
Berry C	16	2	–	–											
Bethel U	8	6	–	–											
Birmingham-Southern C	11	1	–	–											
Bloomsburg U	10	4	–	–											
Boise State U	8	5	–	–											
Boston C	16	9	7	16											
Boston U	24	20	14	16											
Bowdoin C	20	3	–	–											
Bowling Green State U	14	4	1	7											
Bradley U	17	4	0	–											
Brandeis U	6	0	17	3											
Bridgewater State C	7	6	–	–											
C															
Brigham Young U	55	17	7	10											
Brown U	32	0	9	7											
Bryn Mawr C	14	12	2	0											
Bucknell U	22	8	5	–											
Butler U	48	3	–	–											
California Inst. of Tech.	19	19	4	32											
California Polytech. State U	57	20	0	–											
California State Polytech. U	26	6	3	–											
California State U															
Bakersfield	12	3	–	–											
Chico	12	7	–	–											
Dominguez Hills	9	8	–	–											
East Bay	29	6	7	–											
Fresno	24	9	3	–											
Fullerton	34	0	7	–											
Long Beach	64	5	4	–											
Los Angeles	37	9	11	–											
Northridge	38	30	3	–											
Sacramento	25	5	2	–											
San Bernardino	33	3	–	–											
San Marcos	14	13	–	–											
Stanislaus	10	5	–	–											
California, U of															
Berkeley	148	0	14	75											
Davis	38	36	2	19											
Irvine	96	37	20	36											
Los Angeles	238	20	17	28											
Riverside	40	17	4	16											
San Diego	191	116	13	29											
Santa Barbara	79	51	5	20											
Santa Cruz	29	7	3	9											
Calvin C	15	4	–	–											
Canisius C	24	1	–	–											
Capital U	4	0	–	–											
Carleton C	23	4	–	–											
Carnegie Mellon U	43	38	7	12											
Carroll C	15	2	–	–											
Carthage C	10	5	–	–											
Case Western Reserve U	42	10	4	18											
Catholic U of America	9	2	0	0											
Centenary C of Louisiana	15	5	–	–											
Central Arkansas, U of	18	11	–	–											
Central C	8	1	–	–											
Central Connecticut State U	2	2	–	–											
Central Florida, U of	53	17	5	3											
Central Michigan U	17	15	8	–											
Central Missouri, U of	3	3	–	–											
Central Oklahoma, U of	31	4	–	–											
Central Washington U	22	9	3	–											
Centre C	29	7	–	–											
Charleston, C of	36	27	–	–											

	CHEMISTRY				CHEMICAL ENGINEERING		
	BACHELOR'S				B.S.	M.S.	PH.D.
	TOTAL	CERTIFIED	M.S.	PH.D.			
Chatham U	7	2	-	-			
Chicago State U	9	1	-	-			
Chicago, U of	33	24	23	24			
Christian Brothers C ^b					4	-	-
Cincinnati, U of	38	18	9	23	21	2	7
Citadel, The	3	0	-	-			
City U of New York							
Graduate Center	-	-	0	21			
Brooklyn C	30	0	0	-			
City C	29	2	14	-	27	6	7
Herbert H. Lehman C	4	3	-	-			
Hunter C	73	7	-	-			
Queens C	9	8	1	-			
C of Staten Island	18	18	-	-			
Clafin U	8	2	-	-			
Clarion U	5	2	-	-			
Clark U	22	2	1	5			
Clarkson U	26	10	6	2	26	5	4
Clemson U	13	10	3	12	24	1	7
Cleveland State U	6	6	6	7	5	9	5
Coe C	4	2	-	-			
Colby C	17	4	-	-			
Colgate U	17	7	-	-			
Colorado C	13	4	-	-			
Colorado School of Mines	18	18	6	2	80	6	5
Colorado State U	31	15	6	14	20	5	3
Colorado State U, Pueblo	12	1	1	-			
Colorado, U of							
Boulder	86	7	5	19	48	8	12
Colorado Springs	37	11	-	-			
Denver & Health Sciences Center	17	12	6	-			
Columbia U	29	6	39	25	29	10	7
Concordia C	19	4	-	-			
Connecticut C	14	5	0	-			
Connecticut, U of	27	17	7	13	44	4	4
Cooper Union ^b					18	3	-
Cornell C	21	1	-	-			
Cornell U	53	21	35	30	71	15	8
Creighton U	40	25	-	-			
D							
Dartmouth C	28	0	0	1			
Davidson C	5	0	-	-			
Dayton, U of	9	1	4	-	43	7	-
Delaware State U	9	8	7	-			
Delaware Valley C	7	7	-	-			
Delaware, U of	50	42	7	19	45	6	7
Delta State U	11	0	-	-			
Denison U	14	0	-	-			
Denver, U of	12	2	5	2			
DePaul U	15	0	7	-			
DePauw U	33	0	-	-			
Detroit Mercy, U of	16	2	2	-			
Dickinson C	21	5	-	-			
District of Columbia, U of the	2	0	-	-			
Drake U	8	2	-	-			
Drew U	6	0	-	-			
Drexel U	9	9	2	3	46	11	9
Drury U	22	1	-	-			
Duke U	44	6	5	19			
Duquesne U	13	4	2	6			

	CHEMISTRY				CHEMICAL ENGINEERING		
	BACHELOR'S				B.S.	M.S.	PH.D.
	TOTAL	CERTIFIED	M.S.	PH.D.			
E							
Earlham C	20	2	-	-			
East Carolina U	33	6	5	-			
East Stroudsburg U	16	1	-	-			
East Tennessee State U	36	5	5	-			
Eastern Illinois U	15	3	4	-			
Eastern Kentucky U	50	2	4	-			
Eastern Michigan U	33	7	16	-			
Eastern New Mexico U	2	1	3	-			
Eastern Washington U	31	2	-	-			
Eckerd C	7	3	-	-			
Elizabethtown C	4	2	-	-			
Elmhurst C	4	2	-	-			
Elon U	5	4	-	-			
Emory U	73	1	6	16			
Emporia State U	12	4	0	-			
Evansville, U of	17	6	-	-			
F							
Fairfield U	15	14	-	-			
Fairleigh Dickinson U, Madison	3	3	3	-			
Fisk U	4	4	1	-			
Florida A&M U/Florida State U ^b					25	2	3
Florida A&M U	25	2	6	-			
Florida Atlantic U	27	7	5	6			
Florida Inst. of Tech.	5	2	2	2	7	4	0
Florida International U	52	20	6	3			
Florida State U	83	6	6	19			
Florida, U of	104	1	20	47	65	19	19
Fordham U	14	2	-	-			
Fort Lewis C	10	4	-	-			
Framingham State C	4	0	-	-			
Francis Marion U	7	1	-	-			
Franklin & Marshall C	12	5	-	-			
Furman U	25	25	1	-			
G							
Geneva C	4	2	-	-			
George Mason U	27	1	3	-			
George Washington U	21	9	0	2			
Georgetown U	21	8	5	8			
Georgia Inst. of Tech.	44	40	15	25	88	5	31
Georgia Southern U	28	22	-	-			
Georgia State U	28	1	22	10			
Georgia, U of	23	7	5	20			
Gettysburg C	22	8	-	-			
Gonzaga U	7	4	-	-			
Goucher C	8	2	-	-			
Governors State U	6	2	10	-			
Grambling State U	9	0	-	-			
Grand Valley State U	14	6	-	-			
Grinnell C	39	8	-	-			
Gustavus Adolphus C	23	6	-	-			
H							
Hamilton C	24	5	-	-			
Hamline U	4	3	-	-			
Hampden Sydney C	6	5	-	-			
Hampton U	7	7	0	-	5	-	-
Hartford, U of	9	3	-	-			
Hartwick C	5	2	-	-			
Harvard U	41	0	37	34			
Harvey Mudd C	10	7	-	-			

	CHEMISTRY				CHEMICAL ENGINEERING					
	BACHELOR'S				B.S.	M.S.	PH.D.			
	TOTAL	CERTIFIED	M.S.	PH.D.						
Haverford C	24	7	-	-						
Hawaii, U of, Manoa	10	6	2	3						
Hendrix C	7	6	-	-						
Hillsdale C	9	9	-	-						
Hiram C	5	0	-	-						
Hobart & William Smith C	10	3	-	-						
Hofstra U	10	10	-	-						
Holy Cross, C of the	24	22	-	-						
Hope C	44	5	-	-						
Houston, U of	40	30	10	12	43	11	9			
Houston, U of Clear Lake	9	3	5	-						
Houston, U of Downtown	0	0	-	-						
Howard U	12	1	1	5	19	2	-			
Humboldt State U	12	3	-	-						
I										
Idaho State U	21	15	3	-						
Idaho, U of	26	9	6	3	23	6	1			
Illinois Inst. of Tech.	15	15	10	3	19	20	4			
Illinois State U	52	30	13	-						
Illinois Wesleyan U	10	1	-	-						
Illinois, U of Chicago	68	46	11	21	19	6	10			
Illinois, U of Springfield	5	3	-	-						
Illinois, U of Urbana-Champaign	90	22	17	32	63	14	15			
Indiana State U	11	2	-	-						
Indiana U										
Indiana U of Bloomington	75	9	8	11						
Indiana U of Northwest	5	0	-	-						
Indiana U of South Bend	6	3	-	-						
Indiana U of Southeast	0	0	-	-						
Indiana U of Pennsylvania	9	3	5	-						
Indiana U-Purdue U										
Indiana U-Purdue U of Fort Wayne	3	2	-	-						
Indiana U-Purdue U of Indianapolis	36	18	11	2						
Iowa State U	17	14	11	22	75	5	6			
Iowa, U of	21	15	7	18	28	5	9			
Ithaca C	18	18	-	-						
J										
Jackson State U	9	2	5	3						
James Madison U	23	8	-	-						
John Carroll U	21	3	-	-						
Johns Hopkins U	11	11	17	13	67	5	9			
Juniata C	16	9	-	-						
K										
Kalamazoo C	21	3	-	-						
Kansas State U	7	6	5	7	25	4	1			
Kansas, U of	41	41	2	16	18	3	1			
Kean U	10	4	-	-						
Kennesaw State U	57	5	-	-						
Kent State U	15	2	2	4						
Kentucky, U of	32	14	6	11	20	1	7			
Kenyon C	7	4	-	-						
King's C	9	3	-	-						
Knox C	9	1	-	-						
Kutztown U	8	6	-	-						
L										
La Salle U	8	4	-	-						
Lafayette C	26	7	-	-	13	-	-			
CHEMISTRY										
BACHELOR'S										
TOTAL	CERTIFIED	M.S.	PH.D.	B.S.	M.S.	PH.D.				
Lake Forest C	9	5	-	-						
Lamar U	11	7	8	-	24	34	2			
Lawrence	0	0	-	-						
Lawrence U Technological U										
Lawrence U	7	2	-	-						
Lebanon Valley C	17	6	-	-						
Lehigh U	11	2	31	3	36	16	9			
LeMoyn C	6	4	-	-						
Lewis & Clark C	9	4	-	-						
Lincoln U	3	1	-	-						
Lipscomb U	4	1	-	-						
Lock Haven U	3	2	-	-						
Long Island U										
Long Island U Brooklyn Campus	4	3	6	-						
Long Island U C.W. Post Campus	4	3	-	-						
Loras C	0	0	-	-						
Louisiana State U										
Louisiana State U Baton Rouge	30	23	3	18	49	4	7			
Louisiana State U Shreveport	15	1	-	-						
Louisiana Tech. U	7	2	9	-	a					
Louisiana, U of										
Louisiana, U of Lafayette	16	4	-	-	11	6	-			
Louisiana, U of Monroe	4	1	-	-						
Louisville, U of	25	3	11	5	21	8	2			
Loyola C in Maryland	7	4	-	-						
Loyola Marymount U	14	7	-	-						
Loyola U, Chicago	26	25	0	1						
Loyola U, New Orleans	15	3	-	-						
Luther C	7	0	-	-						
Lycoming C	7	3	-	-						
M										
Macalester C	17	9	-	-						
Maine, U of	4	4	2	1	22	6	5			
Manhattan C ^c	3	3	-	-	21	7	-			
Mansfield U	7	3	-	-						
Marietta C	7	1	-	-						
Marist C	7	3	-	-						
Marquette U	3	3	3	8						
Marshall U	23	2	2	-						
Maryland, U of										
Maryland, U of Baltimore County	64	10	5	6	28	4	8			
Maryland, U of College Park	78	7	11	14	35	10	10			
Maryland, U of Eastern Shore	5	5	-	-						
Massachusetts Inst. of Tech.	31	31	9	39	76	30	30			
Massachusetts, U of										
Massachusetts, U of Amherst	17	6	10	15	32	2	7			
Massachusetts, U of Boston	19	0	2	2						
Massachusetts, U of Dartmouth	5	5	4	-						
Massachusetts, U of Lowell	8	8	15	6	12	10	1			
McDaniel C	7	0	-	-						
McNeese State U	7	7	7	-						
Memphis, U of	25	0	3	3						
Mercer U	7	5	-	-						
Merrimack C	8	2	-	-						
Metropolitan State C of Denver	35	10	-	-						
Miami U	51	5	5	10						
Miami, U of	13	0	2	5						
Michigan State U	44	19	8	25	41	2	8			
Michigan Technological U	24	24	3	3	44	4	2			

	CHEMISTRY				CHEMICAL ENGINEERING		
	BACHELOR'S				B.S.	M.S.	PH.D.
	TOTAL	CERTIFIED	M.S.	PH.D.			
Michigan, U of							
Ann Arbor	83	83	43	44	102	17	18
Dearborn	39	12	-	-			
Flint	11	6	-	-			
Middle Tennessee State U	43	4	5	1			
Middlebury C	9	2	-	-			
Midwestern State U	3	0	-	-			
Millersville U	20	13	-	-			
Millikin U	21	0	-	-			
Millsaps C	11	0	-	-			
Minnesota State U							
Mankato	17	4	-	-			
Moorhead	19	4	-	-			
Minnesota, U of							
Duluth	42	27	7	-	22	-	-
Twin Cities	100	19	40	27	102	1	20
Mississippi C	12	3	2	-			
Mississippi State U	2	0	10	2	25	2	4
Mississippi, U of	39	5	1	2	11	2	0
Missouri State U	21	5	4	-			
Missouri, U of							
Columbia	20	3	6	17	31	1	3
Kansas City	64	11	1	1			
St. Louis	33	10	10	4			
Missouri U of Science & Tech. (formerly Missouri, U of, Rolla)	8	6	3	5	39	8	3
Missouri Western State U	11	0	-	-			
Monmouth U	8	1	-	-			
Montana State U	18	18	2	4	31	2	3
Montana Tech., U of Montana	7	3	0	-			
Montana, U of, Missoula	19	0	3	4			
Montclair State U	33	4	9	-			
Montevallo, U of	2	0	-	-			
Moravian C	10	2	-	-			
Morehouse C	8	8	-	-			
Morgan State U	13	5	1	-			
Mount Holyoke C	17	1	-	-			
Mount Saint Joseph, C of	6	1	-	-			
Mount Saint Vincent, C of ^c	2	1	-	-			
Muhlenberg C	12	4	-	-			
Murray State U	22	1	4	-			
Muskingum C	2	0	-	-			
N							
Nazareth C of Rochester	7	4	-	-			
Nebraska Wesleyan U	17	5	-	-			
Nebraska, U of							
Kearney	11	4	-	-			
Lincoln	13	0	4	5	22	2	2
Omaha	8	1	-	-			
Nevada, U of							
Las Vegas	18	2	6	0			
Reno	3	1	3	7	8	2	0
New Hampshire, U of	6	4	5	3	14	4	0
New Haven, U of ^b					6	-	-
New Jersey Inst. of Tech. ^b					26	4	2
New Jersey, C of	30	30	-	-			

	CHEMISTRY				CHEMICAL ENGINEERING		
	BACHELOR'S				B.S.	M.S.	PH.D.
	TOTAL	CERTIFIED	M.S.	PH.D.			
New Mexico Highlands U	2	1	3	-			
New Mexico Inst. of Mining & Tech.	9	9	2	3	11	-	-
New Mexico State U	20	12	7	3	18	5	2
New Mexico, U of	24	0	8	8	17	4	2
New Orleans, U of	5	1	0	7			
New York U	58	0	16	20			
Niagara U	7	1	-	-			
Nicholls State U	3	3	-	-			
Norfolk State U	10	9	-	-			
North Alabama, U of	13	1	-	-			
North Carolina A&T State U	7	7	3	-	17	5	-
North Carolina Central U	8	4	6	-			
North Carolina State U	103	53	4	12	89	13	14
North Carolina, U of							
Asheville	14	7	-	-			
Chapel Hill	84	84	18	34			
Charlotte	31	5	5	-			
Greensboro	17	0	9	-			
Pembroke	28	5	-	-			
Wilmington	65	44	12	-			
North Central C	18	2	-	-			
North Dakota State U	12	12	4	6			
North Dakota, U of	10	2	1	5	a		
North Florida, U of	12	12	-	-			
North Texas, U of	15	5	4	6			
Northeastern Illinois U	11	2	9	-			
Northeastern U	6	6	8	8	0	5	2
Northern Arizona U	34	5	4	-			
Northern Colorado, U of	21	8	4	1			
Northern Illinois U	27	24	6	5			
Northern Iowa, U of	12	5	4	-			
Northern Kentucky U	11	3	-	-			
Northern Michigan U	11	2	2	-			
Northwest Missouri State U	9	6	-	-			
Northwestern State U	8	6	-	-			
Northwestern U	41	4	9	41	32	3	20
Notre Dame, U of	44	14	9	24	38	3	14
O							
Oakland U	21	7	8	1			
Oberlin C	18	10	-	-			
Occidental C	18	3	-	-			
Ohio Northern U	5	3	-	-			
Ohio State U	48	9	10	19	49	6	9
Ohio U	43	6	4	9	11	7	1
Ohio Wesleyan U	7	1	-	-			
Oklahoma State U	7	6	5	4	18	8	4
Oklahoma, U of	74	6	17	18	53	5	6
Old Dominion U	20	8	4	0			
Oregon State U	31	11	7	15	53	10	2
Oregon, U of	40	0	24	17			
Otterbein C	3	0	-	-			
P							
Pace U							
New York	16	2	8	-			
Pleasantville	1	0	-	-			
Pacific Lutheran U	12	6	-	-			
Pacific, U of the	15	3	3	1			

	CHEMISTRY				CHEMICAL ENGINEERING				CHEMISTRY				CHEMICAL ENGINEERING				
	BACHELOR'S				B.S.	M.S.	PH.D.		BACHELOR'S				B.S.	M.S.	PH.D.		
	TOTAL	CERTIFIED	M.S.	PH.D.					TOTAL	CERTIFIED	M.S.	PH.D.					
Pennsylvania State Erie, Behrend C	3	3	-	-													
Pennsylvania State U	39	11	9	31	98	6	16										
Pennsylvania, U of	36	8	14	22	38	12	14										
Philadelphia U	3	3	-	-													
Pittsburg State U	7	1	4	-													
Pittsburgh, U of	73	13	7	30	51	2	10										
Polytechnic U	13	1	2	1	21	9	3										
Pomona C	20	1	-	-													
Portland State U	22	0	2	3													
Portland, U of	10	9	-	-													
Prairie View A&M U ^b					18	-	-										
Princeton U	34	3	1	26	34	0	12										
Providence C	12	8	-	-													
Puerto Rico, U of																	
Mayagüez	38	0	15	1	103	4	3										
Rio Piedras	58	23	1	10													
Puget Sound, U of	27	8	-	-													
Purdue U	48	26	9	50	75	4	22										
Purdue U, Calumet	8	3	-	-													
R																	
Ramapo C of New Jersey	14	3	-	-													
Randolph C	3	1	-	-													
Randolph-Macon C	9	2	-	-													
Redlands, U of	9	1	-	-													
Reed C	14	0	-	-													
Regis U	7	5	-	-													
Rensselaer Polytech. Inst.	16	16	2	11	45	14	18										
Rhode Island C	4	2	-	-													
Rhode Island, U of	17	11	13	5	a												
Rhodes C	15	3	-	-													
Rice U	13	9	31	18	18	3	6										
Richard Stockton C of New Jersey	19	2	-	-													
Richmond, U of	27	3	-	-													
Rider U	3	3	-	-													
Roanoke C	11	5	-	-													
Rochester Inst. of Tech.	36	14	6	-													
Rochester, U of	27	19	21	12	23	4	5										
Rockford C	5	0	-	-													
Roger Williams U	13	4	-	-													
Rollins C	3	0	-	-													
Roosevelt U	10	9	-	-													
Rose-Hulman Inst. of Tech.	10	10	-	-	34	1	-										
Rowan U	17	5	-	-	a												
Russell Sage C	3	2	-	-													
Rutgers U																	
Camden	8	0	5	-													
Newark	17	5	3	5													
New Brunswick	51	14	7	7	43	6	6										
S																	
Saginaw Valley State U	15	1	-	-													
St. Anselm C	3	1	-	-													
St. Benedict, C of/St. John's U	26	2	-	-													
St. Catherine, C of	10	5	-	-													
St. Cloud State U	23	8	-	-													
St. John Fisher C	5	5	-	-													
St. John's U	19	19	9	-													
Saint Joseph C	1	0	2	-													
St. Joseph's U	5	4	-	-													
St. Lawrence U	11	4	-	-													
St. Louis U	26	5	7	2													
Saint Mary's C	8	2	-	-													
St. Mary's C of Maryland	19	6	-	-													
St. Michael's C	5	0	-	-													
St. Olaf C	40	5	-	-													
St. Thomas, U of	39	10	-	-													
Saint Vincent C ^d	8	4	-	-													
Salem State C	16	0	-	-													
Salisbury U	12	3	-	-													
Sam Houston State U	12	3	3	-													
San Diego State U	18	18	0	0													
San Diego, U of	20	0	-	-													
San Francisco State U	62	3	6	-													
San Francisco, U of	6	2	3	-													
San Jose State U	24	15	4	-								14	15	-			
Santa Clara U	7	1	-	-													
Savannah State U	6	4	-	-													
Sciences in Philadelphia, U of	21	17	1	3													
Scranton, U of	23	4	7	-													
Seattle U	24	2	-	-													
Seton Hall U	10	4	13	3													
Seton Hill U ^d	3	3	-	-													
Shippensburg U	7	6	-	-													
Siena C	13	6	-	-													
Simmons C	19	2	-	-													
Skidmore C	9	0	-	-													
Smith C	23	1	-	-													
Sonoma State U	16	5	-	-													
South Alabama, U of	10	8	-	-								10	5	-			
South Carolina, U of	50	21	5	15								24	5	12			
South Dakota School of Mines & Tech.	12	11	-	-								12	1	0			
South Dakota State U	8	0	3	0													
South Dakota, U of	14	3	3	-													
South Florida, U of	63	17	7	11								29	27	9			
Southeast Missouri State U	9	2	4	-													
Southeastern Louisiana U	4	1	-	-													
Southern California, U of	30	25	10	15								22	29	7			
Southern Connecticut State U	6	6	3	-													
Southern Illinois U																	
Carbondale	21	1	5	4													
Edwardsville	20	7	16	-													
Southern Indiana, U of	8	5	-	-													
Southern Methodist U	18	4	1	0													
Southern Mississippi, U of	15	2	1	4													
Southern Oregon U	7	3	-	-													
Southern U and A&M C	12	6	1	-													
Southwest Minnesota State U	8	3	-	-													
Southwestern Oklahoma State U	5	2	-	-													
Southwestern U	11	0	-	-													
Spelman C	13	0	-	-													
Stanford U	19	7	5	27								18	19	12			

	CHEMISTRY				CHEMICAL ENGINEERING		
	BACHELOR'S				B.S.	M.S.	PH.D.
	TOTAL	CERTIFIED	M.S.	PH.D.			
State U of New York							
Albany	19	17	1	3			
Binghamton	56	1	1	10			
Buffalo	83	10	4	22	34	8	6
New Paltz	4	3	-	-			
Stony Brook	35	3	12	15			
C at Brockport	8	1	-	-			
C at Buffalo	30	1	0	-			
C at Cortland	2	1	-	-			
C at Fredonia	11	3	0	-			
C at Geneseo	29	8	-	-			
C at Old Westbury	4	0	-	-			
C at Oneonta	8	0	-	-			
C at Oswego	16	11	4	-			
C at Plattsburgh	9	2	-	-			
C at Potsdam	7	4	-	-			
C at Purchase	1	0	-	-			
Stephen F. Austin State U	6	0	0	-			
Stetson U	6	2	-	-			
Stevens Inst. of Tech.	18	4	6	3	25	10	2
Stonehill C	8	3	-	-			
Suffolk U	17	2	-	-			
Susquehanna U	10	7	-	-			
Swarthmore C	12	6	-	-			
Syracuse U	31	10	5	10	11	4	0
T							
Temple U	105	25	2	8			
Tennessee State U	17	0	4	-			
Tennessee Technological U	25	5	4	-	18	4	2
Tennessee, U of							
Chattanooga	25	9	-	-			
Knoxville	14	2	3	13	18	5	2
Martin	1	0	-	-			
Texas A&M U							
College Station	49	19	6	35	81	11	16
Commerce	2	0	1	-			
Kingsville	8	8	2	-	10	25	-
Texas Christian U	4	2	1	2			
Texas Southern U	10	3	1	-			
Texas State U, San Marcos	28	17	12	-			
Texas Tech. U	55	15	5	4	24	2	6
Texas Woman's U	11	0	0	-			
Texas, U of							
Arlington	26	22	8	5			
Austin	200	200	8	37	109	10	21
Dallas	37	15	5	7			
El Paso	36	36	5	0			
Pan American	13	11	-	-			
San Antonio	13	10	4	-			
Tyler	6	6	-	-			
Thiel C	3	1	-	-			
Toledo, U of	12	6	12	3	21	4	7
Towson U	30	3	-	-			
Tri-State U ^b					5	-	-
Trinity C	15	5	-	-			
Trinity U	21	8	-	-			
Truman State U	29	29	-	-			
Tufts U	32	0	6	5	22	12	3
Tulane U	10	0	2	4	19	3	4
Tulsa, U of	18	7	7	-	12	5	0
Tuskegee U	5	1	4	-	6	-	-
CHEMISTRY							
BACHELOR'S							
TOTAL							
CERTIFIED							
M.S.							
PH.D.							
CHEMICAL ENGINEERING							
B.S.							
M.S.							
PH.D.							
U							
Union C	17	3	-	-			
Union U	5	5	-	-			
U.S. Air Force Academy	29	29	-	-			
U.S. Naval Academy	38	38	-	-			
Ursinus C	9	3	-	-			
Utah State U	25	7	1	2			
Utah, U of	60	49	14	26	22	7	8
V							
Valdosta State U	34	0	-	-			
Valparaiso U	11	5	-	-			
Vanderbilt U	21	2	4	15	30	0	5
Vassar C	21	3	0	-			
Vermont, U of	4	4	2	4			
Villanova U	25	18	16	-	37	6	-
Virginia Commonwealth U	49	1	2	10	7	0	2
Virginia Military Inst.	7	5	-	-			
Virginia Polytech. Inst. & State U	38	23	10	14	48	1	6
Virginia, U of	85	64	8	13	25	11	11
Viterbo U	2	1	-	-			
W							
Wabash C	5	3	-	-			
Wagner C	15	5	-	-			
Wake Forest U	31	12	6	0			
Washburn U	6	0	-	-			
Washington & Jefferson C	13	3	-	-			
Washington & Lee U	17	1	-	-			
Washington C	5	5	-	-			
Washington State U	9	9	4	2	25	2	3
Washington U	28	0	26	16	20	10	11
Washington, U of	256	15	13	26	45	16	7
Wayne State U	33	22	9	19	a		
Waynesburg U	5	2	-	-			
Weber State U	13	3	-	-			
Wellesley C	32	6	-	-			
Wesleyan U	14	0	2	1			
West Chester U	22	10	0	-			
West Florida, U of	14	10	-	-			
West Georgia, U of	25	16	-	-			
West Virginia State U	2	0	-	-			
West Virginia U	32	11	5	8	17	1	3
West Virginia Inst. of Tech. ^b					4	-	-
Western Carolina U	17	6	2	-			
Western Connecticut State U	7	3	-	-			
Western Illinois U	10	0	4	-			
Western Kentucky U	51	3	3	-			
Western Michigan U	27	3	14	7	30	-	-
Western Washington U	46	20	4	-			
Westminster C	16	5	-	-			
Wheaton C							
Illinois	11	2	-	-			
Massachusetts	13	0	-	-			
Whitman C	15	7	-	-			
Whittier C	4	0	-	-			
Wichita State U	41	9	4	4			
Widener U	4	1	-	-	6	7	-
Wilkes U	12	4	-	-			
Willamette U	14	2	-	-			

	CHEMISTRY				CHEMICAL ENGINEERING		
	BACHELOR'S				B.S.	M.S.	PH.D.
	TOTAL	CERTIFIED	M.S.	PH.D.			
William & Mary, C of	39	31	3	-			
Williams C	33	0	-	-			
Winona State U	13	6	-	-			
Winston-Salem State U	9	0	-	-			
Winthrop U	9	3	-	-			
Wisconsin, U of							
Eau Claire	40	6	-	-			
Green Bay	6	3	-	-			
La Crosse	28	3	-	-			
Madison	56	23	20	41	65	7	23
Milwaukee	28	2	4	5			
Oshkosh	7	7	-	-			
Parkside	3	2	-	-			
Platteville	15	8	-	-			
River Falls	9	2	-	-			
Stevens Point	19	6	-	-			
Superior	4	0	-	-			
Whitewater	6	4	-	-			
Wittenberg U	16	4	-	-			
Wooster, C of	23	5	-	-			

	CHEMISTRY				CHEMICAL ENGINEERING		
	BACHELOR'S				B.S.	M.S.	PH.D.
	TOTAL	CERTIFIED	M.S.	PH.D.			
Worcester Polytech. Inst.	33	8	0	0	29	4	1
Wright State U	19	12	9	-			
Wyoming, U of	18	8	3	7	12	0	0
X							
Xavier U	14	6	-	-			
Xavier U of Louisiana	48	2	-	-			
Y							
Yale U	15	15	28	21	6	12	10
Youngstown State U	24	12	15	-	12	0	-
TOTAL	13,921	4,879	2,051	2,362	4,708	936	885

NOTE: For brevity, B.S. and M.S. are used to denote all bachelor's and master's degrees, respectively, in each column. - = Institution does not offer degree program. Certified degrees are determined by the chairs of ACS-approved chemistry departments and are considered to be a more rigorous course of study. **a** Data not submitted. **b** Listed on basis of accreditation by AIChE/ABET. **c** The chemistry program at Mount Saint Vincent and Manhattan C are integrated into a combined department with instruction in chemistry located at Manhattan C. **d** Saint Vincent C and Seton Hill C are integrated into a combined department.

Just what you've been waiting for...
A professional, social network for chemists!
 Join your colleagues in the ACS Network!

Where Chemists Connect *worldwide*

- **Connect** with scientists and build your network
- **Communicate** online and share scientific interests
- **Collaborate** in groups and discussion forums

Register today at www.acs.org/network

